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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,454	01/27/2000	Xiaowen Yang	YANG I	9889

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EXAMINER	
MOORTHY, ARAVIND K	
ART UNIT	PAPER NUMBER
2131	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/492,454	YANG, XIAOWEN	
	Examiner	Art Unit	
	Aravind K. Moorthy	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 January 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to the arguments filed on 20 November 2006.

2. Claims 1-22 are pending in the application.

3. Claims 1-22 have been rejected.

Response to Arguments

4. Applicant's arguments filed 20 November 2006 have been fully considered but they are not persuasive.

On page 8, the applicant argues that Miliani fails to disclose us of digital data, much less scrambling of a digital stream, as recited by claims 1, 2, 4-10, 12-15, 17, 19 and 21. The applicant argues that Videcrantz modified by Miliani is nonsensical.

The examiner respectfully disagrees. Miliani discloses a digital to analog converter. Therefore, Mililani teaches digital signals. Miliani discloses scrambling of the digital stream (i.e. premium channels).

On page 9, the applicant argues that Videcrantz and Miliani fail to disclose a digital data stream or scrambling and descrambling of a plurality of data packets within the digital data stream, much less scrambling and descrambling some of a plurality of data packets within the data stream, as recited by claims 1, 2, 4-10, 12-15, 17, 19 and 21. The applicant argues that it is not obvious to modify Videcrantz with the disclosure of Miliani.

The examiner respectfully disagrees. As discussed above, Miliani teaches a digital data stream. Miliani discloses scrambling and descrambling of digital signals that represent premium movie channels.

On page 10, the applicant argues that Videcrantz does not discuss anything about a central portion of a data packet, much less disclose scrambling only a central portion of every nth one of a plurality of data packets, where n is an integer greater than 1, as recited by claims 10, 12-15, 19 and 21.

The examiner respectfully disagrees. Videcrantz discloses a second part of the packet. The second part of the packet represents the central portion. The combination of Videcrantz and Miliani discloses encrypting packets selectively. Every "nth" packet is not defined to a specific packet. Therefore, the claim can be broadly interpreted to include selective packets. The combination of the references teaches more than one packet.

On pages 10 and 11, the applicant argues that Videcrantz in view of Miliani fails to disclose or suggest scrambling and descrambling some of a plurality of data packets within the digital data stream; and scrambling and descrambling only a central portion of every nth one of a plurality of data packets, where n is an integer greater than 1, as recited by claims 3, 11, 16, 18, 20 and 22.

The examiner respectfully disagrees. As discussed above, Videcrantz discloses a second part of the packet. The second part of the packet represents the central portion. The combination of Videcrantz and Miliani discloses encrypting packets selectively. Every "nth" packet is not defined to a specific packet. Therefore, the claim can be broadly interpreted to include selective packets. The combination of the references teaches more than one packet.

On page 11, the applicant argues that Newton fails to provide any disclosure or suggestion of applying MPEG-2 to anything related to scrambling and descrambling some of a plurality of data packets within the digital data stream; and scrambling and descrambling only a

central portion of every nth one of a plurality of data packets, where n is an integer greater than 1.

The examiner respectfully disagrees. The combination of Videcrantz and Miliani teaches that the stream is a MPEG stream. Newton was used to modify the stream to MPEG-2 and the benefits of MPEG-2. As discussed above, Videcrantz discloses a second part of the packet. The second part of the packet represents the central portion. The combination of Videcrantz and Miliani discloses encrypting packets selectively. Every "nth" packet is not defined to a specific packet. Therefore, the claim can be broadly interpreted to include selective packets. The combination of the references teaches more than one packet.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 2, 4-10, 12-15, 17, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Videcrantz et al U.S. Patent No. 6,275,588 BI in view of Miliani et al U.S. Patent No. 5,682,426.

As to claim 1, Videcrantz et al discloses a device to descramble a packetized digital data stream, comprising:

> the packet including a header portion and a data payload, the data payload including a scrambled central portion and an unscrambled portion [column 26, lines 44-60]; and

a descrambler to descramble the scrambled central portion of the data payload of the packet [column 26, lines 44-60];

wherein the header portion is unscrambled [column 26, lines 44-60].

Videcrantz et al does not teach a receiver to receive a packet of a digital data stream wherein only some of a plurality of data packets within the digital data stream are scrambled.

Miliani et al teaches selectively encrypting some of the packets (i.e. premium channels) [column 15, lines 7-15].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al so that the packets containing the premium channels would have only been encrypted. The packets would have included a header portion and a data payload. The data payload would have included a scrambled central portion and an unscrambled portion. A descrambler would have descrambled the scrambled central portion of the data payload of the packet. The header portion would have been entirely unscrambled.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 2, Videcrantz et al teaches that the scrambled central portion of the data payload is at a location within the payload portion of the packet such that the scrambled central portion is preceded and succeeded by the unscrambled portion [column 26, lines 44-60].

As to claim 4, Videcrantz et al teaches that the packet contains compressed digital data [column 26, lines 61-67].

As to claim 5, Videcrantz et al teaches that the compressed digital data includes a video signal [column 26, lines 61-67].

As to claim 6, Videcrantz et al teaches that the compressed digital data includes an audio signal [column 26, lines 61-67].

As to claim 7, Videcrantz et al teaches that the compressed digital data includes a video signal and an audio signal [column 26, lines 61-67].

As to claim 8, Videcrantz et al teaches a method of scrambling a packetized digital data stream, comprising;

producing a data packet stream comprising a plurality of data packets [column 26, lines 44-60]; and

scrambling a first central portion of a data payload of some of the plurality of data packets within the data packet stream and without scrambling the header of the packets [column 26, lines 44-60].

Videcrantz et al does not teach a receiver to receive a packet of a digital data stream wherein only some of a plurality of data packets within the digital data stream are scrambled.

Miliani et al teaches selectively encrypting some of the packets (i.e. premium channels) [column 15, lines 7-15].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al so that the packets containing the premium channels would have only been encrypted. The packets would have included a header

portion and a data payload. The data payload would have included a scrambled central portion and an unscrambled portion. A descrambler would have descrambled the scrambled central portion of the data payload of the packet. The header portion would have been entirely unscrambled.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 9, Videcrantz et al teaches that the scrambling leaves a second portion of the data payload of each of the some of the plurality of data packets unscrambled [column 26, lines 44-60].

As to claim 10, Videcrantz et al teaches a method of scrambling a packetized digital data stream, comprising:

producing a data packet stream comprising a plurality of data packets [column 26, lines 44-60]; and

scrambling only a central portion of every nth one of the plurality of data packets, where n is an integer greater than 1 [column 26, lines 44-60].

Videcrantz et al does not teach a receiver to receive a packet of a digital data stream wherein only some of a plurality of data packets within the digital data stream are scrambled.

Miliani et al teaches selectively encrypting some of the packets (i.e. premium channels) [column 15, lines 7-15].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al so that the packets containing the premium channels would have only been encrypted. The packets would have included a header portion and a data payload. The data payload would have included a scrambled central portion and an unscrambled portion. A descrambler would have descrambled the scrambled central portion of the data payload of the packet. The header portion would have been entirely unscrambled.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 12, Videcrantz et al teaches compressed video data [column 26, lines 61-67].

As to claim 13, Videcrantz et al teaches compressed audio data [column 26, lines 61-67].

As to claim 14, Videcrantz et al teaches compressed video data and compressed audio data [column 26, lines 61-67].

As to claim 15, Videcrantz et al teaches a method of descrambling a packetized digital data stream, comprising:

receiving a data packet stream comprising a plurality of data packets [column 26, lines 44-60]; and

descrambling only a central portion of every one of the plurality *of* data packets [column 26, lines 44-60].

Videcrantz et al does not teach descrambling every nth packet, where n is an integer greater than 1, leaving remaining ones of the plurality of data packets as received.

Miliani et al teaches descrambling every nth packet, where n is an integer greater than 1, leaving remaining ones of the plurality of data packets as received [abstract].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al so that only the central portion of every nth packet, where n was an integer greater than 1, would have been decrypted and the leaving the remaining ones.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 17, Videcrantz et al teaches an apparatus for scrambling a packetized digital data stream, comprising:

producing a data packet stream comprising a plurality of data packets [column 26, lines 44-60]; and

scrambling a first central portion of a data payload of the plurality of data packets within the data packet stream and without scrambling a header of the plurality of data packets [column 26, lines 44-60].

Videcrantz et al does not teach a receiver to receive a packet of a digital data stream wherein only some of a plurality of data packets within the digital data stream are scrambled.

Miliani et al teaches selectively encrypting some of the packets (i.e. premium channels) [column 15, lines 7-15].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al so that the packets containing the premium channels would have only been encrypted. The packets would have included a header portion and a data payload. The data payload would have included a scrambled central portion and an unscrambled portion. A descrambler would have descrambled the scrambled central portion of the data payload of the packet. The header portion would have been entirely unscrambled.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 19, Videcrantz et al teaches an apparatus for scrambling a packetized digital data stream, comprising: producing a data packet stream comprising:

a plurality of data packets [column 26, lines 44-60]; and

scrambling only a central portion of the plurality of data packets [column 26, lines 44-60].

Videcrantz et al does not teach a receiver to receive a packet of a digital data stream wherein only some of a plurality of data packets within the digital data stream are scrambled.

Miliani et al teaches selectively encrypting some of the packets (i.e. premium channels) [column 15, lines 7-15].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al so that the packets containing the premium channels would have only been encrypted. The packets would have included a header portion and a data payload. The data payload would have included a scrambled central portion and an unscrambled portion. A descrambler would have descrambled the scrambled central portion of the data payload of the packet. The header portion would have been entirely unscrambled.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

As to claim 21, Videcrantz et al teaches an apparatus for descrambling a packetized digital data stream, comprising:

receiving a data packet stream comprising a plurality of data packets [column 26, lines 44-60]; and

descrambling only a central portion the plurality of data packets [column 26, lines 44-60].

Videcrantz et al does not teach descrambling every nth packet, where n is an integer greater than 1, leaving remaining ones of the plurality of data packets as received.

Miliani et al teaches descrambling every nth packet, where n is an integer greater than 1, leaving remaining ones of the plurality of data packets as received [abstract].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al so that only the central portion of every nth packet, where n was an integer greater than 1, would have been decrypted and the leaving the remaining ones.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Videcrantz et al by the teaching of Miliani et al because by blocking the premium channels, it restricts a user to only the basic channels if the user has not subscribed to the premium movie channels [column 15, lines 7-15].

6. Claims 3, 11, 16, 18, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Videcrantz et al U.S. Patent No. 6,275,588 B1 and Miliani et al U.S. Patent No. 5,682,426 as applied to claims 1, 10, 15, 17, 19 and 21 above, and further in view of Newton's Telecom Dictionary (hereinafter Newton).

As to claims 3, 11, 16, 18, 20 and 22, the Videcrantz-Miliani combination teaches that the digital data stream is an MPEG stream [column 6 line 65 to column 7 line 24].

The Videcrantz-Miliani combination does not teach that the digital data stream is an MPEG-2 digital data stream.

Newton teaches the use of MPEG-2 and its benefits [pages 489-490].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Videcrantz-Miliani combination so that the MPEG stream would have been a MPEG-2 digital data stream,

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Videcrantz-Miliani combination by the teaching of

Newton because MPEG-2 is efficient. MPEG-2 can incorporate a range of compression ratios, which trade of economies of storage and transmission bandwidth against picture quality [pages 489-490].

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K. Moorthy whose telephone number is 571-272-3793. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aravind K Moorthy
February 1, 2007

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